

Abstract

A data frame is received at a communications protocol software module and a memory buffer is allocated in which to store at least some portion of the data frame from a pool of available memory buffers. Depending on the processing that needs to be done by the communications protocol software module, at least some portion of the data frame is stored in the memory buffer. A pointer to the memory buffer is provided to the communications protocol software module, so that the communications protocol software module can access the data frame in the memory buffer. When the communications protocol software module is done processing the data frame, a buffer manager transfers control of processing the data frame from the communications protocol software module to a second communications protocol software module. The pointer to the memory buffer is provided to the second communications protocol software module so it can then access the data frame in the memory buffer pointed to by the pointer, and process the data frame.